## Adverse effects of herbs as galactogogues

Aust Prescr 2018;41:66 https://doi.org/10.18773/austprescr.2018.026

In the article on drugs affecting milk supply during lactation, the author states that Shatavari (*Asparagus racemosus*) has possible teratogenicity so it should be avoided in pregnancy.<sup>1</sup>

Shatavari is an ingredient in most herbal teas which are recommended to be taken during pregnancy and breastfeeding.

Can the author give an explanation of why Shatavari is considered a teratogen when it is widely used in readily available teas?

Judith Gallagher Retired pharmacist Melbourne

## REFERENCES

 McGuire TM. Drugs affecting milk supply during lactation. Aust Prescr 2018;41:7-9. https://doi.org/10.18773/ austprescr.2018.002

Treasure McGuire, the author of the article, comments:

For a drug to be considered teratogenic, it must demonstrate a dose-related disturbance on embryo or fetus development, producing an irreversible defect present at birth, with a temporal relationship to organ formation.

Shatavari contains steroidal saponins (shatavarins). In ayurvedic medicine, the root is considered a reproductive tonic, with adaptogenic and hormonal activity. Despite long traditional use, data on

reproductive use in humans are limited. When Shatavari root was given orally in a therapeutic human equivalent dose (20 g/day) adjusted for body weight (30 mg/100 g/day) to rats, guinea pigs and rabbits, it produced oestrogenic effects on mammary glands and genital organs, and a competitive blockade of oxytocin-induced contractions.<sup>1,2</sup> In a randomised study of pregnant rats given Shatavari root 10 mg/100 g/day or a control treatment for 60 days, there was an increased resorption of fetuses, and pups showed teratogenic disorders, gross malformations (e.g. swelling in legs) and intrauterine growth retardation. Live pups showed a significant decrease in body weight and developmental delay. The investigators concluded that the herb be used cautiously in pregnancy, as its exposure during that period may cause damage to the offspring.3

Herbal teas often contain a mix of herbs and doses tend to be much lower than amounts used therapeutically. However, until there is clearer evidence of doses that are safe in pregnant women, it seems prudent to avoid Shatavari in the first trimester (during organogenesis). This does not preclude use in later trimesters or during breastfeeding.

## **REFERENCES**

- Pandey SK, Sahay A, Pandey RS, Tripathi YB. Effect of Asparagus racemosus rhizome (Shatavari) on mammary gland and genital organs of pregnant rat. Phytother Res 2005;19:721-4. https://doi.org/10.1002/ptr.1590
- Gaitondé BB, Jetmalani MH. Antioxytocic action of saponin isolated from Asparagus racemosus Willd (Shatavari) on uterine muscle. Arch Int Pharmacodyn Ther 1969;179:121-9.
- Goel RK, Prabha T, Kumar MM, Dorababu M, Prakash, Singh G. Teratogenicity of Asparagus racemosus Willd root, a herbal medicine. Indian J Exp Biol 2006;44:570-3.